

ABSTRACT OF THE DISCLOSURE

A method and mechanism of enforcing, in a computer network, a community separation policy wherein the data of a particular user community should be accessible only by members of that community. A Multi-Community Node (MCN) processes information for users in multiple communities and must enforce the community separation policy. In a closed MCN, which runs only applications trusted to enforce the community separation policy, the method and mechanism performs a set of checks on packets received from and to be transmitted on a network, to ensure that all communications comply with the community separation policy. The checks (1) prevent communications from a network used by one community or communities to a network used by different communities; (2) ensure that packets sent by the MCN are output on an interface attached to a network for the intended community; and (3) detect when remote nodes communicating with the MCN spoof their source network address to masquerade as a node in another community. The enforcement method and mechanism use a database of associations of sets of communities corresponding to each network addresses of the MCN and each node with which it communicates, and of the set of communities associated with each network attached to the MCN.